Abstract

An asynchronous model for interacting with web servers is presented here. In this model, the web browser sends requests using currently used protocols such as HTTP. This asynchronous model applies when a) the client requests data that is not available immediately, and b) when the client and web server are interacting over an ongoing task. An example of the first case is when the server has to search massive amounts of data. An example of the second case is when the client is tracking the status of a shipment. We define asynchronous links or Asynchronous Hyperlink Objects (AHO) for this new model. In this asynchronous model the web server informs the client immediately that the client's request was received, agents are created for both the client and server. These agents keep track of the status of the request, inform the client of any changes in the status, and are active until the interaction is concluded. In the current and conventional situation, the interaction between the web browser and the web server is based on synchronous interactions and links. We call these links Synchronous Hyperlink Objects (SHO), because when a client sends a request to a web server, the client must wait for a response before any further steps can be taken. There is often no immediate feedback on whether the request will be fulfilled or not, or even whether the request was received at all. In this disclosure, the implementation of the asynchronous model and the application of this new model for web browser to web server interaction are presented.